

was extensive in Knoxville and vicinity, and Caney Creek above Rock Island, Tenn., and Stone River near Murfreesboro, Tenn., were in high flood.

Arkansas River basin.—On September 27–28 heavy rains occurred in the entire Neosho Basin, the Verdigris River above Independence, Kans., and in the Caney and Bird Creek Basins. Storm totals reached as high as 5 inches in the Neosho Basin below Iola, Kans., and about 4 inches in the Verdigris Basin. Runoff was relatively low and the resulting crests were generally below flood stages except in the Neosho River at Parsons and Oswego, Kans., where crests slightly above flood stage occurred on September 29.

West Gulf of Mexico drainage.—The severe flooding which began in the upper Nueces River during the latter part of August and reported in the August issue of the REVIEW continued in the lower portion during the first week of September. A crest of 26.65 feet, 11.5 feet above flood stage and the third highest stage of record, passed Cotulla, Tex., on August 30. The rise reached Three Rivers, Tex., on September 6 with a stage of 1.5 feet above flood stage.

Two additional rises in the lower Rio Grande followed the light to moderate overflows during the period August 24 to September 5. The first of these rises, from September 10 to 15, was caused by heavy rains over the San Juan River watershed in Mexico combined with high water present in the lower Rio Grande from the previous flood. The resulting crests were slightly lower than the earlier flood except at Brownsville, Tex., where a crest of 18.4 feet occurred on September 15, compared to 18.0 feet on September 5.

The second rise, from September 18 to 22, was caused by water coming down the main river from the El Paso, Tex., area. Flood stage was not reached from this rise except at Mercedes, Tex., with a crest of 21.8 feet. Very little damage resulted from these rises.

Colorado River basin.—A series of small but locally intense thunderstorms occurred in the vicinity of Thatcher and Safford, Ariz., during the period September 23–26, causing extensive damage to canal systems, highways, crops, and miscellaneous property in that area. The heaviest rains occurred on September 25 and rainfall totals for the entire storm period range from 4.69 inches at Hawk Hollow on the Fry Mesa Road at the foot of the Mesa, to as much as 7.65 inches in Thatcher. The Gila River, into which this area drains, showed no appreciable rise. Damage to property and crops resulting from the storms has been estimated at \$700,000, crop damage from hail accounting for \$125,000 of this loss.

FLOOD-STAGE REPORT FOR SEPTEMBER 1944

[All dates in September unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest ¹	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
James:	<i>Feet</i>			<i>Feet</i>	
Scottsville, Va.....	20	19	20	26.0	19
Bremo Bluff, Va.....	19	19	20	34.5	19
Columbia, Va.....	10	18	21	37.4	20
Cartersville, Va.....	16			29.6	20
State Farm, Va.....	12	19	21	26.4	20
Richmond, Va.....	8	19	22	22.4	21
Dan:					
Danville, Va.....	11	{ 19	19	12.8	19
Clarksville, Va.....	13	{ 30	(?) 22	18.5	21
Roanoke:					
Randolph, Va.....	21	19	22	32.6	20
Weldon, N. C.....	31	20	25	48.6	22
Williamston, N. C.....	10	25	Oct. 13	12.9	27
Neuse:					
Neuse, N. C.....	14	{ 21	24	16.0	22
Smithfield, N. C.....	13	{ 30	(?) 25	13.8	24
Haw: Moncure, N. C.....	20	30	(?)		
Catawba: Catawba, N. C.....	8	30	(?)		
EAST GULF OF MEXICO DRAINAGE					
Choctawhatchee: Caryville, Fla.....	12	13	16	12.8	14
Conecuh: River Falls, Ala.....	35	11	11	35.7	11
MISSISSIPPI SYSTEM					
Missouri Basin					
Floyd: James, Iowa.....	14	20	21	15.1	21
Solomon: Beloit, Kans.....	18	Aug. 31	1	21.2	1
Little Blue:					
Endicott, Nebr.....	11	{ Aug. 30	1	12.4	1
		{ 21	21	12.3	21
Hanover, Kans.....	14	Aug. 30	1	16.6	Aug. 30
Big Blue:					
Blue Rapids, Kans.....	20	Aug. 30	1	25.0	Aug. 31
Randolph, Kans.....	22	Aug. 30	1	23.7	Aug. 31
Kansas: Manhattan, Kans.....	17	Aug. 31	1	17.9	Aug. 31
Missouri: St. Charles, Mo.....	25	Aug. 30	1	26.25	Aug. 31
Arkansas Basin					
Neosho:					
Parsons, Kans.....	22	29	29	22.6	29
Oswego, Kans.....	17	29	30	18.2	29
WEST GULF OF MEXICO DRAINAGE					
Nueces:					
Cotulla, Tex.....	15	Aug. 29	7	26.65	Aug. 30
Three Rivers, Tex.....	37	6	7	38.5	6
Rio Grande:					
Rio Grande City, Tex.....	21	Aug. 29	1	26.6	Aug. 30
Hildago, Tex.....	21	{ Aug. 29	4	23.4	2-3
		{ 10	13	22.3	12
		{ Aug. 25	6	23.4	2, 4-5
Mercedes, Tex.....	21	{ 10	15	23.2	13
		{ 21	22	21.8	21
Brownsville, Tex.....	18	{ 5	5	18.0	5
		{ 14	15	18.4	15

¹ Provisional.² Continued at end of month.